AMENDMENTS TO THE CLAIMS

By this paper, claims 1-25 are pending (new claims 23-25 have been added) as reflected below.

1. (Currently Amended) In a processing device and a cable modem associated with the processing device, a method for automatically recognizing a communication device to be associated with the processing device so that one or more received data packets can be properly filtered to exclude any data packets for one or more communication devices that are not associated with the processing device, the method comprising the acts of:

receiving an outgoing data packet from the communication device, the outgoing data packet having an address identifying the communication device;

comparing the address with a list of addresses that identify any communication devices that have previously been registered with the processing device;

determining that the address is not included in the list; ~~and~~

adding the address to the list of addresses;

receiving an incoming data packet having a destination address;

comparing the destination address to the list of addresses;

if the destination address matches the address that has been added to the list of addresses, then transmitting the incoming data packet to the communication device; and

if the destination address does not match any address that has been added to the list of addresses, then filtering the incoming data packet.

2. (Currently Amended) The method according to claim 1, wherein the processing device comprises a bridging component.

3. (Original) The method according to claim 2, wherein the act of receiving comprises the acts of:

the communication device writing the outgoing data packet to a buffer accessible by the bridging component associated with the cable modem; and

the bridging component accessing the outgoing data packet in the buffer.

4. (Original) The method according to claim 2, further comprising the acts of:

determining that the destination of the outgoing data packet is not destined for a communications device that is local to the processing device; and

transmitting the outgoing data packet over a cable network

5. (Original) The method according to claim 2, further comprising the act of:

determining that the destination of the outgoing data packet is destined for a communications device that is local to the processing device; and

transmitting the outgoing data packet to the communications device that is local to the processing device.

6. (Original) The method according to claim 2, wherein the act of comparing comprises the act of the bridging component comparing the address with a list of addresses that identify any communication devices that have previously been registered with the bridging component.

7. (Original) The method according to claim 2, wherein the act of determining comprises the act of the bridging component determining that the address is not included in the list.

8. (Original) The method according to claim 2, wherein the act of adding comprises the act of the bridging component adding the address to the list of addresses.

9. (Original) The method according to claim 1, further comprising the act of the communication device generating the outgoing data packet.

10. (Original) The method of claim 1, further comprising the acts of:

determining that the communication device cannot share a buffer with the processing device associated with the cable modem;

a bridging component creating a separate buffer for the communication device; and

the communication device writing the outgoing data packet to the separate buffer.

11. (Original) The method according to claim 1, further comprising the acts of:

using the communication device for the first time to communicate over the cable network, so as to generate the outgoing data packet;

the act of adding the address to the list of addresses resulting in the communication device being automatically registered by the processing device.

12. (Original) The method according to claim 1, wherein the processing device comprises at least a portion of the communication device, the method further comprising the acts of:

using the communication device for a first time to communicate over the cable network after a cable modem driver has been installed in the communication device; and

the act of using the processing device for a first time resulting in the generation of the outgoing data packet.

13. (Currently Amended) The method according to claim 1, further comprising the acts of:

~~receiving an incoming data packet having a destination address;~~

recognizing that the destination address matches the address that has been added to the list of addresses; and

transmitting the incoming data packet to the communication device in response to the act of recognizing.

14. (Currently Amended) The method according to claim ~~13~~1, wherein the act of receiving an incoming data packet comprises the acts of:

receiving the incoming data packet at the cable modem; and

transmitting the incoming data packet to the cable modem driver.

15. (Currently Amended) In a processing device and a cable modem associated with the processing device, a method for automatically recognizing a communication device that has been newly networked with the processing device and is to communicate over a cable network using the cable modem, the method comprising the steps of:

establishing a network connection between the communication device and the processing device;

using the communication device to transmit an outgoing data packet to the cable network using the cable modem, the outgoing data packet including a network address of the communication device; ~~and~~

in response to the outgoing data packet, and without user intervention, adding the network address to address filtering information associated with the cable modem, so as to result in the communication device being registered to receive incoming data packets via the cable modem

for a received an incoming data packet having a destination address, determining if the destination address is in the list of addresses;

if the destination address matches the network address of the communication device that has been added to the list of addresses, then sending the incoming data packet to the communication device; and

if the destination address does not match any address in the list of addresses, then discontinuing further processing for the incoming data packet.

16. (Original) The method according to claim 15, wherein the processing device comprises a bridging component.

17. (Original) The method according to claim 15, wherein a cable modem is hosted by the processing device and is internal to the processing device.

18. (Original) The method according to claim 15, wherein the cable modem is external to the processing device.

19. (Original) The method according to claim 15, wherein the step of adding the network address to the address filtering information comprises the acts of:

comparing the network address with a list of addresses that identify any communication devices that have previously been registered to receive incoming data packets via the cable modem;

determining that the network address is not included in the list; and

adding the network address to the list of addresses

20. (Currently Amended) The method according to claim 15, further comprising the acts of:

~~receiving an incoming data packet having a destination address;~~

recognizing that the destination address matches the network address that has been added to the list of addresses; and

transmitting the incoming data packet to the communication device in response to the act of recognizing.

21. (Currently Amended) A computer program product for implementing, in a processing device and a cable modem associated with the processing device, a method for automatically recognizing a communication device that is to communicate over a cable network using the cable modem such that one or more received data packets can be properly filtered to exclude any data packets for communication devices that are not associated with the processing device, the computer program product comprising:

a computer-readable medium carrying executable instructions that, when executed, are capable of performing the acts of:

receiving an outgoing data packet for transmission onto the cable network from the communication device, the outgoing data packet having an address identifying the communication device;

comparing the address with a list of addresses that identify any communication devices that have previously been registered to the processing device;

determining that the address is not included in the list; and

adding the address to the list of addresses;

receiving an incoming data packet having a destination address;

comparing the destination address to the list of addresses;

if the destination address matches the address that has been added to the list of addresses, then transmitting the incoming data packet to the communication device; and

if the destination address does not match nay address that has been added to the list of addresses, then filtering the incoming data packet.

22. (Currently Amended) The computer program product of claim 21, wherein the executable instructions, when executed, are further capable of performing the acts of:

~~receiving an incoming data packet having a destination address;~~

recognizing that the destination address matches the address that has been added to the list of addresses; and

transmitting the incoming data packet to the communication device in response to the act of recognizing.

23. (New) The computer program product of claim 21, wherein the destination address does not match any address in the list of addresses, and wherein the incoming data packet is filtered.

24. (New) The method according to claim 1, wherein the destination address does not match any address in the list of addresses, and wherein the incoming data packet is filtered.

25. (New) The method according to claim 15, wherein the destination address does not match any network address in the list of addresses, and wherein further processing is discontinued for the incoming data packet.